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ABSTRACT

In 1988, a follow-up study was conducted to describe and evaluate the academic progress of students who had been the subjects of fall 1986 and fall 1987 Learning Assessment Retention Consortium (LARC) student outcomes studies. The study samples included 2,012 students who had completed a remedial writing course at one of 10 participating California community colleges in fall 1986 and 1,581 students who had completed a remedial reading course at one of 17 participating colleges in fall 1987. To conduct the study, information was collected from college records, and 483 students were interviewed over the telephone. Major findings of the study included the following: (1) 85% of the former writing students and 82% of the former reading students persisted at least one semester after the outcomes studies took place; (2) there were substantial differences in semester-to-semester persistence rates among ethnic groups and between students who were successful in the initial remedial course of study and those who were not successful; (4) 45% of the fall 1986 remedial writing students had completed freshman composition by the end of the spring 1988 semester; (5) 20% of the fall 1987 remedial reading students were still enrolled in remedial reading courses in fall 1988; (6) about half of the sample consistently had grade point averages (GPA's) between 2.0 and 2.9, more than one-quarter had GPA's over 2.9, and almost one-quarter had GPA's below 2.0; (7) of the students who had departed the participating community college and who were interviewed, the majority had not re-enrolled at a community or four-year college; and (8) 74% of the former remedial reading students responded in an interview that they were reading more now or finding reading more enjoyable as a result of their class. Appendixes provide data collection instruments, college tables, a chronology of the study, and a background and description of LARC. (Author/JMC)

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LARC

Fall 1988 Follow-up Study
of Students Enrolled in
Remedial Writing Courses in Fall 1986
and Remedial Reading Courses
in Fall 1987

Learning Assessment Retention Consortium

Student Outcomes Study

Year 3 • July 1989

JC 920 049

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LEARNING ASSESSMENT
RETENTION CONSORTIUM

Student Outcomes Study

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Fall 1988 Follow-up Study of Students Enrolled in
Remedial Writing Courses in Fall 1986
and
Remedial Reading Courses in Fall 1987

Julie Slark
August 1989

JC 920 049

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1988-89

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Executive Summary

The purpose of this follow-up study was to describe and evaluate the academic progress of students who had been studied in the Fall 1986 and Fall 1987 LARC Student Outcomes Studies. The follow-up samples included 2012 students who had completed a remedial writing course at one of ten participating California community colleges in Fall 1986, and 1581 students who completed a remedial reading course at one of 17 participating colleges in Fall 1987. To conduct the study, information was collected from college records, and 483 students were interviewed over the telephone. The findings include:

- 85% of the former writing students and 82% of the former reading students persisted for at least one semester beyond the semester during which the outcomes studies took place. These are high semester-to-semester persistence rates.

- There are substantial differences in semester-to-semester persistence rates among ethnic groups and between students who were successful (A,B,C,CR grade) in the initial remedial course of study and those who were not successful. Students who had been enrolled in the lowest levels of remediation persist in college at the same rates as those in higher levels.

- 45% of the Fall 1986 remedial writing students had completed freshman composition by the end of the Spring 1988 semester. This is the most appropriate and accessible success measure for these students, and this rate represents satisfactory progress for a large number of formerly remedial students. 40% of the students who had been enrolled in a writing course three levels below freshman composition in Fall 1986 went on to complete freshman composition.

- 20% of the Fall 1987 remedial reading students were still enrolled in remedial reading courses in Fall 1988.

- The students enrolled in increasingly larger proportions of college-level courses in subsequent semesters, demonstrating appropriate academic progress.

- While about half of the sample students consistently had gpa's between 2.0 and 2.9 and more than a quarter had gpa's over 2.9, almost a quarter had gpa's below 2.0. Data is not available with which to compare this distribution to other groups of students, however.

- Of the students who had departed the participating community college and who were interviewed, the majority had not re-enrolled at a community or four-year college. 23% of the departed writing student respondent sample who had initially declared "transfer" as a goal, were attending a four-year college, however.

- 74% of the former remedial reading students responded in an interview that they were "reading more now or finding reading more enjoyable" as a result of their class.

In conclusion, these results show that most students who have been enrolled in remedial courses persist in college, progress academically, and achieve their educational goals. Thus, remedial programs appear to be appropriately preparing students for college-level work.

The students who had been enrolled in remedial reading courses did not demonstrate as high levels of success as did writing students. And finally, differences in persistence and performance rates among ethnic groups exist and should be further studied and addressed.

Introduction

The series of LARC (Learning Assessment Retention Consortium) Student Outcomes Studies began in Fall 1986 with the study of 7800 students enrolled in remedial writing courses in 29 California community colleges. In Fall 1987, the study continued with a focus on remedial reading courses (including 3500 students at 28 California community colleges), and currently and finally the study is taking place in math programs. For those studies, three student outcomes criteria were identified and evaluated: retention, skills acquisition, and student goal satisfaction. Other related research and publications have also been completed, including studies of the writing and reading curriculum, policy papers, and one follow-up study of the Fall 1986 remedial writing student sample.

This report represents a follow-up study of the Fall 1986 students who were enrolled in remedial writing and the Fall 1987 students who were enrolled in remedial reading. This study took place in Fall 1988; hence, it reflects the two years of educational activities of the writing students since their enrollment in the initial Fall 1986 remedial course and one such year for the former remedial reading students.

While the original reports included valuable, comprehensive, and positive student outcomes information, it was necessary to monitor the academic performance of the students in the original samples for a longer period of time in order to more completely evaluate student outcomes of remedial students. The purpose of this follow-up effort, then, was to evaluate the progress of community college students after they had completed some remedial coursework and to determine if the formerly remedial students were indeed advancing successfully in college-level work.

Method

All of the colleges who participated in the original writing and reading outcomes studies were invited during Spring 1988 to participate in this Fall 1988 follow-up activity, and they were informed that they would be compensated a nominal amount for each original study sample student for whom they submitted follow-up records and interview information. Ten of the 29 Year 1/Writing colleges and 17 of the 28 Year 2/Reading colleges participated in this follow-up.

The Rancho Santiago Research Center again coordinated the research and processed all of the data. The LARC Executive Committee served as the Advisory Committee to the study, which was funded by the California Community Colleges' Fund for Instructional Improvement.

Colleges were asked to collect and submit academic performance and retention data from college records for students in the original samples who had completed the original remedial course. Table 1 lists the colleges participating in the follow-up and displays their response rates, 95% representing 2,012 students for the writing study colleges and 97% representing 1,581 students for the reading study colleges.

Participating college representatives were additionally asked to telephone interview students from the sample who were no longer enrolled at their college during Fall 1988. The major purpose of the interviews was to determine whether the students had enrolled at another college. Because it was not known in early Fall 1988 whether project funding would be adequately augmented to compensate colleges for

interviewing, only three of the ten writing follow-up study colleges and ten of the reading follow-up study colleges interviewed students. The response rates for the interviews were 26% (n=236) and 46% (n=247) respectively for former writing and reading students. (Refer to the original study reports for a description of the student samples.)

There are two parts to the "Findings" chapter of this report, one describing the retention and academic performance of students, and the second describing responses from the interviews of the students who had left the original study college after completing the initial remedial course.

All data and report tables are available for individual participating colleges in Appendix B. Colleges are not identified by name, however.

Findings

Part 1

Retention

Table 2 and Graph 1 show that 85% of the writing follow-up study students and 82% of the reading follow-up study students persisted for at least one additional semester after completing the initial remedial course. The persistence rates dropped the greatest amounts from that first semester of persistence to the second semester: to 59% for writing study students and to 61% for reading study students. The persistence rate for writing study students into their fourth semester after the initial study semester (Fall 1986) was 44%.

There is very little consistent difference among semester-to-semester persistence rates for students who were enrolled in different levels of remediation during the initial study semester. It is encouraging to learn that those who had been enrolled in the lower levels of remedial coursework do not appear to drop out of college at higher rates. Ideally, their persistence rates would be higher than those who were enrolled in less remedial courses, assuming that they were not as academically advanced and, thus, required more community college work before completing their college work or transferring to a four-year college. Nonetheless, these semester-to-semester persistence rates for all groups studied remain higher than the average rate found in other studies for all students. The high rates suggest that students who receive needed basic skills education more often persist in college.

Another analysis (Table 2A) of semester-to-semester persistence rates was conducted which isolated students who had declared a transfer-related goal and who were in their first semester of college during the first semesters of the studies. As expected, their persistence rates were higher than those for the entire sample (which also included non-first-semester students): 87% for writing students and 86% for reading students to their first semesters of persistence.

Semester-to-semester persistence rates were also calculated separately for those who successfully completed (A, B, C, or CR grade) the initial writing or reading course and for those who did not successfully complete the course (D, F, NCR grade), and Table 3 shows the results of that analysis. There is a significant difference between the two groups, with the successful student group persisting to a first subsequent semester at a much higher rate (90% for writing and 88% for reading) than the non-successful group.

An analysis of persistence rates by ethnicity is shown in Table 4. Asian students persist in college at higher rates than all other groups, 91% compared to the 85% sample average for persistence to the first semester after completion of the initial remedial writing course. Black students from the writing study demonstrated significantly lower persistence rates for each subsequent semester.

Academic Progress and Performance

Tables 5, 6, and 7 show the percentage of former remedial writing students who completed freshman composition, through Spring 1988, by initial course level, initial writing course success or non-success, and ethnicity. By the end of Spring 1988, or four semesters after completion of the Fall 1986 remedial writing course, 45% of the students had completed freshman composition. Most of these students, 29%, completed freshman composition in Spring 1987, or within one semester of completing the remedial writing course. Students who successfully completed the initial remedial writing course were much more likely to complete freshman composition, 50% compared to 21% for the non-successful.

Students who had been enrolled in the Fall 1986 writing course which was one level below freshman composition completed freshman composition at a higher rate, 53%, than lower level students. Forty percent of the students in the course three levels below freshman composition later completed freshman composition. It is very possible that some of those students enrolled in the writing course one level below freshman composition in Fall 1986 had also completed lower levels of remediation. Consequently, analysis according to initial course level during the Fall 1986 study is difficult. But it is encouraging to learn that 40% of students who were at one time enrolled in the lowest levels of remediation succeeded.

There were significant differences among ethnic groups on rates of freshman composition completion. This completion rate for white students was 50%. Hispanics demonstrated the lowest rate of completion, 36%.

Table 8 shows the number of students in the reading study who enrolled in subsequent reading courses. A total of 20% were enrolled in reading courses in Fall 1988, two semesters after the study began. As expected, students who demonstrated lower reading ability at the beginning of Fall 1987 more frequently continued their reading coursework enrollment in Fall 1988.

The purpose for providing remedial courses in community colleges is to prepare students for college-level work. Ideally, students who complete remedial coursework will subsequently enroll and succeed in non-remedial coursework. This study monitored that progress by determining the change in the average percentage of non-remedial units in which the students were enrolled from Fall 1986 through Fall 1988 for the writing students and from Fall 1987 through Fall 1988 for the reading students. (See Table 9.) An average of 70% of the units in which the writing students were enrolled in Fall 1986 were non-remedial; this percentage changed to 100% four semesters later, showing that these students did progress, on the average, to be enrolled in all college-level coursework.

The reading students were enrolled in an average of 54% non-remedial units during the first semester of the reading study; two semesters later that percentage changed to 85%. On the average, students enrolled in remedial reading courses appear to be enrolled in a higher percentage of remedial coursework than students enrolled in remedial writing courses.

Table 10 shows the distribution of grade point averages of the students for each semester. The greatest percentage of students, 45% to 47%, maintained average gpa's, between 2.0 and 2.9. From 21% to 26%, however, have gpa's below 2.0, and from 29% to 32% have gpa's above 2.9. There is a slight increase in the average gpa for writing students during the Spring 1988 semester. There is a slightly higher percentage of reading students with gpa's below 2.0, and their average gpa is slightly lower than that of the writing student sample. It would be necessary to know the gpa distribution of all community college students to further analyze the relative academic progress of these students for this measure. Of concern, however, are the students who make up almost one quarter of these samples: those who have gpa's below 2.0.

Part II

Interview Responses

Table 11 shows subsequent college enrollment status by employment status. It shows that, of the students interviewed who were no longer attending the original study community college, 39% of the writing students and 21% of the reading students were attending another college during Fall 1988. The largest number of those attending college were attending another community college; only 16% of the writing students and 3% of reading students were attending a four-year college.

(It is possible that the interviewee sample was biased in favor of students who had not left the area to "go away" to a four-year college insofar as these respondents were accessible to interview; in other words, students who transferred to a four-year college may have been more likely to have left the area and be inaccessible for an interview. Analysis of the respondents, however, reveals that they are similar in demographic characteristics to the group of all non-returning students.)

The majority of the non-returning students were employed full-time, and students who were employed full-time were most frequently not enrolled in college.

Table 12 shows that of the interview respondents from the writing study who had originally identified "transfer" as their long-term educational objective, 23% had indeed transferred to a four-year college. This percentage coupled with the large percentage of former writing students who were still enrolled in the original study community college (44%, see Table 3) indicates that these students are remaining in college, successfully pursuing their transfer objective.

Of the reading students who were no longer attending the original study community college, a larger percentage than that from the writing student sample, 79%, were not enrolled in any college during Fall 1988. However, 28% of the former students with a "transfer" objective were enrolled at some college.

Former remedial reading students were asked if, as a result of taking a reading course, they "read more now" or "enjoyed reading more now", and 74% responded "yes" to this question. Only 16% responded "no", and 10% said they "don't know." If they indeed responded conscientiously to this question, the reading courses are contributing to the quality of students' lives by enhancing their appreciation of reading.

#53-B:LARC

Table 1
Sample Description and Response Rates
by College

Name of Follow-up College	# in original sample	# eligible followup	# follow up forms returned	response %	# not enrolled Fall 88	# interv. returned	response %
YEAR 1 - WRITING							
Butte	379	312	307	98%	4	62	*
Canada	218	153	153	100	96	0	0
College of the Desert	240	210	207	99	123	0	0
College of San Mateo	264	208	189	91	111	0	0
Gavilan	252	182	145	80	4	37	*
Golden West	313	201	195	97	125	0	0
Long Beach City	243	236	232	99	141	52	37%
Rio Hondo	213	206	202	98	113	53	47
Skyline	319	214	203	95	116	0	0
Solano	238	203	203	100	113	32	29
TOTAL	2679	2125	2012	95%	946	236	26%
YEAR 2 - READING							
Antelope Valley	107	69	52	75%	14	9	64%
Butte	150	93	93	100	39	14	36
Cabrillo	95	80	79	99	0	23	*
Cerritos	174	136	136	100	46	29	63
College of the Desert	107	101	75	75	24	0	0
College of the Redwoods	49	42	39	93	2	0	0
Compton	106	73	73	100	32	8	25
Fullerton	146	120	120	100	44	25	57
Gavilan	130	114	113	99	0	12	*
Lake Tahoe	10	7	7	100	1	2	*
Merced	154	104	104	100	37	0	0
Mendocino	43	35	34	97	21	0	0
Mount San Antonio	128	121	118	98	41	31	76
Rancho Santiago	130	96	96	100	43	15	35
San Joaquin Delta	147	138	138	100	72	46	64
Santa Rosa Junior	169	162	162	100	60	11	18
Solano	153	144	142	99	60	20	33
TOTAL	2000	1638	1581	97%	536	247	46%

*college submitted records data only for those who were enrolled Fall 88; thus, enrollment status is not known for their total sample.

Table 2
Persistence Rates for Remedial Writing Students[2]
Spring 1987 through Fall 1988
by Fall 1986 English Course Level

Fall 1986 English Writing Course Level	Spring 1987	Fall 1987	Spring 1988	Fall 1988
3 Levels Below FC[1] (n=137)	91%	67%	55%	49%
2 Levels Below FC (n=571)	83	59	54	43
1 Level Below FC (n=880)	86	58	55	43
TOTAL (n=1588)	85%	59%	55%	44%

Persistence Rates for Fall 1987 Remedial Reading Students
Spring 1988 through Fall 1988
by Pre-Test Percentile Group

Pre-Test Percentile Group	n	Spring 1988	Fall 1988
Stanford Diagnostic			
low	501	81%	60%
middle	156	83	64
high	20	80	70
NJBSCT[3]			
low	168	82%	61%
middle	254	85	59
high	145	84	59
TOTAL	1244	82%	61%

[1] Freshman Composition
[2] course completers, for all tables
[3] New Jersey Basic Skills Competency Tests/Reading Comprehension

Graph 1
Semesters of Persistence

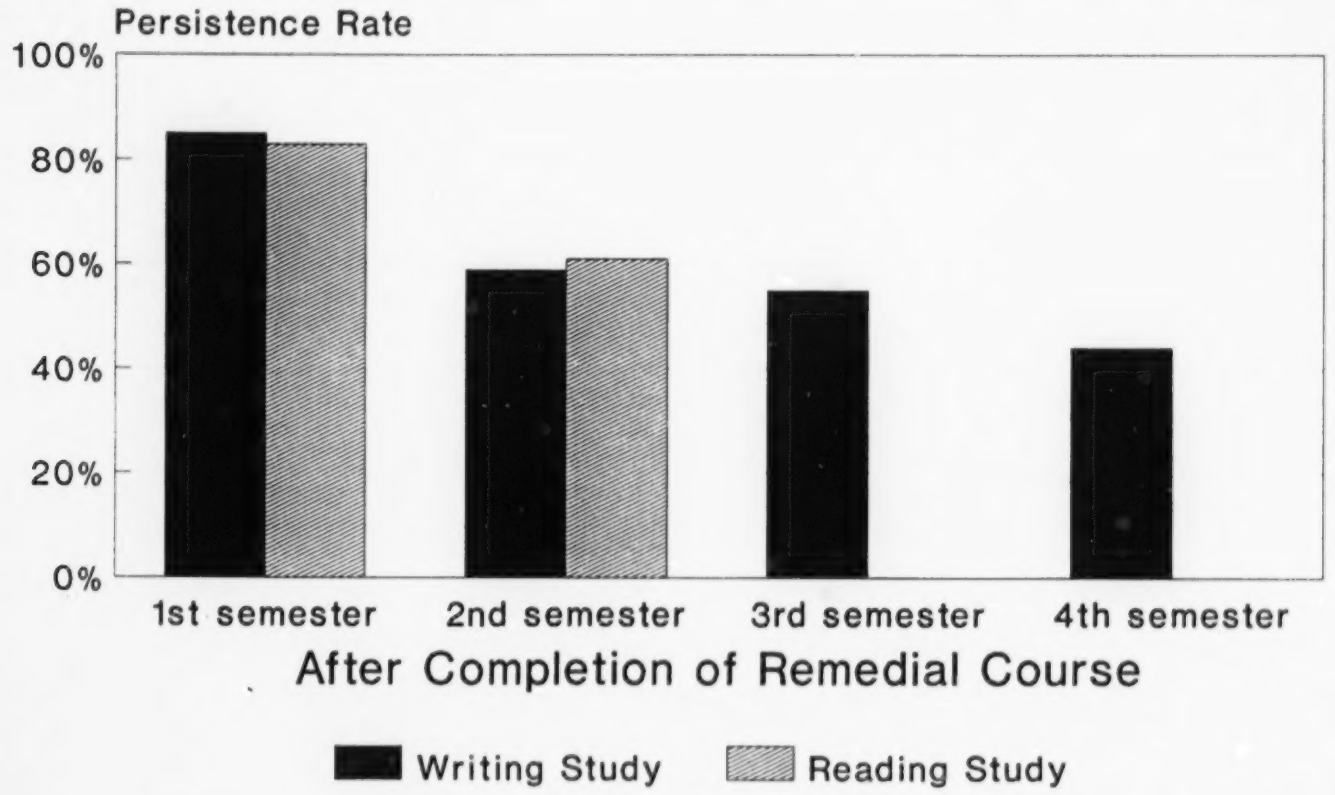

Table 2A
Persistence Rates for Fall 1986 Remedial Writing Students
With Transfer-Related Goals and Who Were in
First Semester of College at Start of Study

	Spring 1987	Fall 1987	Spring 1988	Fall 1988
Total n = 653	87%	65%	60%	47%

Persistence Rates for Fall 1987 Remedial Reading Students
with Transfer-Related Goals and Who Were in
First Semester of College at Start of Study

	Spring 1988	Fall 1988
Total n = 454	86%	66%

Table 3
Persistence Rates for Fall 1986 Remedial Writing Students by Success in Fall 1986 Writing Course

	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
Successful (A,B,C,Cr)	1262	90%	63%	59%	48%
Non-Successful (D,F,NCr,W,I)	326	67	43	39	27
TOTAL	1588	85%	59%	55%	44%

Persistence Rates for Fall 1987 Remedial Reading Students by Success in Fall 1987 Reading Course

	n	Spring 1988	Fall 1988
Successful (A,B,C,Cr)	1030	88%	65%
Non-Successful (D,F,NCr,W,I)	214	58	37
TOTAL	1244	83%	61%

Table 4
Persistence Rates for Fall 1986 Remedial Writing Students by Ethnicity

Ethnicity	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
Hispanic	361	82%	56%	57%	42%
Black	138	79	50	45	28
Asian	160	91	64	59	48
White	798	86	60	54	45
Other	112	84	63	55	46
Unknown	19	90	68	68	58
TOTAL	1588	85%	59%	55%	44%

Persistence Rates for Fall 1987 Reading Students by Ethnicity

Ethnicity	n	Spring 1988	Fall 1988
Hispanic	334	84%	62%
Black	135	82	59
Asian	185	85	62
White	480	82	60
Other	86	74	58
Unknown	24	79	67
TOTAL	1244	82%	61%

Table 5
Former Remedial Writing Students Who Completed Freshman Composition
Spring 1987 through Spring 1988
by Course Success

Success in Fall 86 Writing Course	Completed Freshman Composition							
	Spring 1987		Fall 1987		Spring 1988		Total	
	n	%	n	%	n	%	n	%
Successful (A,B,C,Cr) n=1113	368	33%	133	12%	61	5%	562	50%
Non-Successful (D,F,NCr) n= 242	20	8	20	8	11	5	51	21
TOTAL n=1355	388	29%	153	11%	72	5%	613	45%

Table 6
Former Remedial Writing Students Who Completed Freshman Composition
Spring 1987 through Spring 1988
by Course Level in Fall 1986 Writing Course

Fall 86 Writing Course Level		Completed Freshman Composition							
		Spring 1987		Fall 1987		Spring 1988		Total	
		n	%	n	%	n	%	n	%
1 LB FC [1]	n=756	308	41%	66	9%	29	4%	403	53%
2 LB FC	n=485	71	15	59	12	34	7	164	34
3 LB FC	n=114	9	8	28	25	9	8	46	40
TOTAL	n=1355	388	29%	153	11%	72	5%	613	45%

[1] level below freshman composition

Table 7
Former Remedial Writing Students Who Completed Freshman Composition
Spring 1987 through Spring 1988
by Ethnicity

Ethnicity	n	Spring 1987 n	Spring 1987 %	Fall 1987 n	Fall 1987 %	Spring 1988 n	Spring 1988 %	TOTAL n	TOTAL %
Hispanic	321	68	21%	28	9%	19	6%	115	36%
Black	110	28	26	10	9	6	5	44	40
Asian	131	28	21	19	15	12	9	59	45
White	685	230	34	84	12	31	5	345	50
Other	89	28	32	9	10	3	3	40	45
Unknown	19	6	32	3	16	1	5	10	53
TOTAL	1355	388	29%	153	11%	72	5%	613	45%

Table 8
Fall 1987 Remedial Reading Students Enrolled in Reading Course Fall 1988
by Pre-Test Percentile Group

Pre-Test Percentile Group	Enrolled in Reading Course Fall 88			
	Yes		No	
	n	%	n	%
Stanford Diagnostic				
low	86	21%	331	79%
middle	14	10	125	90
high	1	6	16	94
NJBSCT				
low	43	32%	91	68%
middle	56	23	186	77
high	19	14	121	86
TOTAL	219	20%	870	78%

Table 9
Percentage of Non-Remedial Units Enrolled In
Fall 1986 - Fall 1988
by Level

Fall 1986 English Writing Course Level		Fall 86 % non-remedial units	Spring 87 % non-remedial units	Fall 87 % non-remedial units	Spring 88 % non-remedial units	Fall 88 % non-remedial units
WRITING STUDENTS						
3 Levels Below	n= 125	70%	91%	89%	100%	100%
2 Levels Below	n= 512	55	82	88	100	100
1 Level Below	n= 751	77	92	100	100	100
TOTAL	n=1388	70%	91%	89%	100%	100%
AVERAGE # OF NON-REMEDIAL UNITS		7	10	8	7	5

Fall 1987 Pre-Test Percentile Group		Fall 87 % non-remedial units	Spring 88 % non-remedial units	Fall 88 % non-remedial units
STANFORD DIAGNOSTIC				
low	n= 484	54%	77%	85%
middle	n= 162	58	77	85
high	n= 21	54	88	100
NJBSCT				
low	n= 174	50	75	83
middle	n= 265	54	88	100
high	n= 145	72	90	100
TOTAL	n=1252	54%	80%	85%
AVERAGE # OF NON-REMEDIAL UNITS		6	8	6

Table 10
Grade Point Average Distribution for Fall 1986 Remedial Writing Students
Spring 1987 through Spring 1988

Grade Point Average	Fall 1986	Spring 1987	Fall 1987	Spring 1988
Below 1.0	5%	5%	3%	3%
1.0 - 1.9	18	19	20	18
2.0 - 2.9	46	45	46	47
3.0 - 3.9	26	26	26	25
4.0	6	5	5	7
Average Grade Point Average	2.49	2.46	2.47	2.50

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Grade Point Average Distribution for Fall 1987 Remedial Reading Students
Spring 1988

Grade Point Average	Spring 1988
Below 1.0	4%
1.0 - 1.9	22
2.0 - 2.9	45
3.0 - 3.9	24
4.0	5
Average Grade Point Average	2.40

Table 11
College Enrollment Status for Fall 1986 Remedial Writing Course Students in Fall 1988 by Employment Status*

College Enrollment Status	Working F/T	Working P/T	Not Working	TOTAL
Yes, in college	n=113	n=53	n=58	n=224
community college	11%	40%	22%	21%
four-year college	5	25	29	16
other	1	4	2	2
SUB-TOTAL	17%	69%	53%	39%
No, not in college	83%	31%	47%	61%
TOTAL	50%	24%	26%	100%

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Employment Status*

College Enrollment Status	Working F/T	Working P/T	Not Working	TOTAL
Yes, in college	n=110	n=41	n=73	n=224
community college	8%	24%	10%	12%
four-year college	2	5	7	3
other	3	15	6	6
SUB-TOTAL	13%	44%	23%	21%
No, not in college	87%	56%	77%	79%
TOTAL	49%	18%	33%	100%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

Table 12
College Enrollment Status for Fall 1986 Remedial Writing Course Students in Fall 1988 by Educational Goal in Fall 1986*

College Enrollment Status	Fall 1986 Educational Goal		
	Transfer-Related	Other	TOTAL
Yes, in college	n=139	n=93	n=232
community college	19%	22%	21%
four-year college	23	10	16
other	1	2	2
SUB-TOTAL	43%	34%	39%
No, not in college	57%	66%	61%
TOTAL	60%	40%	100%

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Educational Goal in Fall 1987*

College Enrollment Status	Fall 1987 Educational Goal		
	Transfer-Related	Other	TOTAL
Yes, in college	n=119	n=73	n=192
community college	16%	6%	12%
four-year college	4	1	3
other	8	3	6
SUB-TOTAL	28%	10%	21%
No, not in college	72%	90%	79%
TOTAL	62%	38%	100%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

Table 13
Students "Reading More Now or Finding Reading More Enjoyable"
by Pre-Test Percentile Group*

Pre-Test Percentile Groups	Read More Now or Find Reading More Enjoyable		
	Yes	No	Other/ Don't Know
Stanford Diagnostic:			
Low(n=84)	83%	6%	11%
Middle(n=27)	59	33	7
High(n=4)	100	0	0
NJBSCT:			
Low(n=29)	62%	21%	17%
Middle(n=41)	73	17	10
High(n=26)	69	27	4
TOTAL(n=211)	74%	16%	10%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

Conclusions

California's 1960 Master Plan for Higher Education crafted the concept that high school graduates and other adults in need of further college preparatory work would attend community colleges to acquire this preparation and their general postsecondary education prior to transferring to a state four-year college or university. Since that Plan was developed, questions have persisted regarding the viability of the community colleges in fulfilling this function: Do students needing basic skills remediation succeed in postsecondary education? What are the learning outcomes resulting from community college remedial programs?

These questions and interest in student outcomes assessment prompted the series of LARC Student Outcomes Studies which was initiated in 1986. The findings of these studies also address issues raised most recently by the Joint Committee for Review of the Master Plan in California Faces.....California's Future, which focusses upon questions of student access, equity, and success. That report reaffirms that, "The California Community Colleges are the gateway to equity, providing access to top quality lower division transfer and vocational education" and addresses the transfer function thusly:

> "Transfer is the promise at the center of California's entire system of higher education. The idea is deceptively simple. Wherever you start, whatever your past scores or grades, no matter whether you bring a history of 'achievement' or the promise of your initiative and commitment: we [community colleges] will provide an opportunity for you.....transfer programs gave otherwise excluded students a way back into our educational system."

For these studies, a selected number of outcomes criteria for students enrolled in remedial writing and reading courses was identified and studied. For the most part, it can now be demonstrated that students with remedial education needs who enroll in

community colleges have high rates of success in postsecondary education. Findings to document this conclusion are outlined both in reports of the first studies and again in this study, which followed the original groups of remedial students for additional semesters.

A most important conclusion is that, although efforts may be labor-intensive and costly, community college student outcomes information can be collected and analyzed. In addition to the generous funding provided by the California Community Colleges Chancellor's Office for these studies, the participating colleges contributed both human and fiscal resources. Faculty, staff, administrators, and students worked beyond their normal responsibilities to collectively document the results of their efforts. Significantly, it was a voluntary consortium of colleges, the Learning Assessment Retention Consortium, which provided the leadership needed to demonstrate the success of community college programs.

Demonstrating the success of community colleges in fulfilling that unique portion of their mission which is to prepare students to succeed in postsecondary education, this follow-up study has found the following:

- 45% of the students who were enrolled in remedial writing courses during Fall 1986 had completed a freshman composition course by Fall 1988. Thus, 45% had succeeded in completing the English baccalaureate requirement. This percentage would be even greater if it were possible to "track" students' accomplishments at students' subsequent colleges of enrollment or if this study continued for a longer period of time.

- Rates of persistence in college for students who have enrolled in remedial courses are high; more than 80% of these students persisted for at least one additional semester.
- Further, students who had been enrolled in remedial courses, subsequently enroll in increasingly larger proportions of college-level coursework and eventually enroll, on the average, in all non-remedial coursework.
- 23% of the respondent sample who had departed the community college and who had identified transfer to a four-year college as a goal had indeed transferred within four semesters after enrollment in the remedial writing course.

While persistence rates were similar, there were other differences between the samples of remedial writing students and remedial reading students. Reading students:

- Were enrolled, on the average, in a greater percentage of remedial courses.
- Had a lower average gpa.
- More often did not re-enroll in another college after leaving the college of study.

The findings revealed the following issues as ones of concern and topics for future studies:

- The differences in various success measures for underrepresented minorities, Hispanics and Blacks.
- The students who do not demonstrate success, either by dropping out of college or by failing to achieve in community colleges.

The data generated by these studies are rich, and readers are encouraged to review the other reports listed in the appendix for additional student outcomes information. In all, the community colleges and their staff who contributed to this research can be assured that their teaching, learning, and research efforts have been productive.

Appendix A

Data Collection Instruments

LARC STUDENT OUTCOMES STUDY
Follow-Up of Year One/Writing

ID# _____
Name _____

A. Fall 1986
   1. Semester g.p.a. ____.____ ____

B. Spring 1987
   2. Semester g.p.a. ____.____ ____
   3. Completed Freshman Composition yes____ no____

C. Fall 1987
   4. # remedial units enrolled in ____ ____
   5. # non-remedial units enrolled in ____ ____
   6. Semester g.p.a. ____.____ ____
   7. Completed Freshman Composition yes____ no____

D. Spring 1988
   8. # remedial units enrolled in ____ ____
   9. # non-remedial units enrolled in ____ ____
   10. Semester g.p.a. ____.____ ____
   11. Completed Freshman Composition yes____ no____

E. Fall 1988*
   12. # remedial units enrolled in ____ ____
   13. # non-remedial units enrolled in ____ ____

*All students not enrolled in Fall 1988 are to be interviewed over the telephone.

Instructions & Definitions:

1) # of units enrolled in - as of first census week (usually 4th week of semester)
2) remedial units = those in basic subjects (English, reading and math) defined by Title V as remedial. This includes English writing courses at least two levels below college-level English (not including ESL) and Math courses at least one level below beginning algebra.
3) Non-remedial units = all units not included in #2 above.
4) If student is not enrolled for given semester, enter zeros in questions about units. Enter "NA" in g.p.a. question.
5) Round # of units to whole numbers, where necessary.

#22-B:LARCINST

LARC STUDENT OUTCOMES STUDY
Telephone Interview
Year One/Writing

This interview is for any student in the original Fall 1986 sample who completed the Fall 1986 writing course who is NOT enrolled at your college during Fall 1988.

ID# _____

Name _____

Telephone #( )_____

Contact information _____

_____

Hello, my name is _____ and I'm calling from the _____ College _____ Office. Two years ago you were enrolled in an English writing class at our college, and we are calling all of the students who were enrolled in that class in order to study what happens to students after they leave our college. May I ask you four short questions?

1) First, are you enrolled in a college now?
   ____ Yes
   ____ No

2) If yes, what college are you enrolled in?
   _____
   Name of college
   ____ Community college
   ____ 4-year college
   ____ Other

3) Are you currently employed?
   ____ Yes
   ____ No

4) If yes, do you work full-time (more than 20 hours a week) or part-time, and what do you do?
   _____
   Position and title
   ____ Full-time
   ____ Part-time

Optional:

5) Do you have any other comments you want to make about your experiences in our English class or in our college?

_____

_____

_____

[Please turn over]

Other questions added by college:

6)

Date and time of interview _____/_____

Signature of interviewer _____

#35-A:\WRITINT

LARC STUDENT OUTCOMES STUDY
Follow-Up of Year Two/Reading

ID#_____

Name_____

A. Spring 1988
1. Semester g.p.a. ____.____ ____

B. Fall 1988*
2. # remedial units enrolled in ____ ____
3. # non-remedial units enrolled in ____ ____
4. Enrolled in a reading course yes____ no____

* All students not enrolled in Fall 1988 are to be interviewed over the telephone.

Instructions & Definitions:

1) # of units enrolled in - as of first census week (usually 4th week of semester)
2) remedial units = those in basic subjects (English, reading and math) defined by Title V as remedial. This includes English writing courses at least two levels below college-level English (not including ESL) and Math courses at least one level below beginning algebra.
3) Non-remedial units = all units not included in #2 above.
4) If student is not enrolled for given semester, enter zeros in questions about units. Enter "NA" in g.p.a. question.
5) Round # of units to whole numbers, where necessary.

IARC Student Outcomes Study
Telephone Interview
Year Two/Reading

This interview is for any student in the original Fall 1987 sample who completed the Fall 1987 reading course and who is NOT enrolled at your college during Fall 1988.

ID#_____

Name_____

Telephone #(___)_____

Contact Information_____

_____

Hello, my name is _____ and I'm calling from the _____ College _____ Office. A year ago you were enrolled in a reading course at our college, and we are calling all of the students who were enrolled in that class in order to study what happens to students after they leave our college. May I ask you six short questions?

1) First, are you enrolled in a college now?
   ____ Yes
   ____ No

2) If yes, what college are you enrolled in?
   ____ Community college
   ____ 4-year college
   ____ Other

   _____
   Name of college

3) Are you currently employed?
   ____ Yes
   ____ No

4) If yes, do you work full-time (more than 20 hours a week) or part-time, and what do you do?
   ____ Full-time
   ____ Part-time

   _____
   Position, title

5) As a result of taking a reading class, do you read more now or enjoy reading more?
   ____ Yes
   ____ No
   ____ Other
   ____ Don't know

[Please turn over]

6) What types of material do you frequently (at least weekly) read: [Read list]

____ Textbooks for school
____ Magazines
____ Newspapers
____ Material for my job
____ Books including novels
____ Other_____

Optional:

7) Do you have any other comments you want to make about your experiences in our reading class or in our college?

_____

_____

_____

Other questions added by college:

8)

Date and time of interview _____/_____

Signature of interviewer _____

#35:A:\READINT

Appendix B

College Tables

Persistence Rates for Fall 1986 Remedial Writing Students by Fall 1986 Remedial Writing Course Level

Fall 1986 Writing Course Level	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
COLLEGE 1					
1 Level Below	145	90%	52%	48%	40%
2 Levels Below	39	100	67	54	41
3 Levels Below	-	-	-	-	-
TOTAL	184	92%	55%	50%	40%
COLLEGE 7					
1 Level Below	77	96%	65%	56%	30%
2 Levels Below	55	89	71	67	46
3 Levels Below	55	93	80	64	51
TOTAL	187	93%	71%	62%	41%
COLLEGE 10					
1 Level Below	40	95%	78%	73%	45%
2 Levels Below	90	79	51	42	33
3 Levels Below	63	91	54	43	32
TOTAL	193	86%	58	49%	35%
COLLEGE 14					
1 Level Below	98	81%	59%	64%	50%
2 Levels Below	104	75	55	52	39
3 Levels Below	-	-	-	-	-
TOTAL	202	78%	57%	58%	44%
COLLEGE 15					
1 Level Below	93	83%	54%	48%	42%
2 Levels Below	109	82	50	47	43
3 Levels Below	-	-	-	-	-
TOTAL	202	82%	52%	48%	43%

Fall 1986 Writing Course Level	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
COLLEGE 19					
1 Level Below	140	80%	59%	51%	36%
2 Levels Below	37	81	57	51	38
3 Levels Below	-	-	-	-	-
TOTAL	177	80%	59%	51%	37%
COLLEGE 24					
1 Level Below	163	81%	46%	47%	34%
2 Levels Below	-	-	-	-	-
3 Levels Below	-	-	-	-	-
TOTAL	163	81%	46%	47%	34%
COLLEGE 26					
1 Level Below	56	84%	55%	48%	34%
2 Levels Below	86	79	64	56	31
3 Levels Below	-	-	-	-	-
TOTAL	142	81%	61%	53%	32%
COLLEGE 27					
1 Level Below	34	94%	77%	85%	91%
2 Levels Below	36	97	72	78	97
3 Levels Below	19	84	74	68	100
TOTAL	89	93%	74%	79%	96%
COLLEGE 28					
1 Level Below	34	88%	85%	94%	91%
2 Levels Below	15	87	73	80	93
3 Levels Below	-	-	-	-	-
TOTAL	49	88%	82%	90%	92%

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Persistence Rates for Fall 1987 Remedial Reading Students by Pre-Test Percentile Group

Pre-Test Percentile Groups	n	Spring 1988	Fall 1988
COLLEGE 2			
Low	23	87%	57%
Middle	53	85	74
High	24	79	46
TOTAL	100	84%	63%
COLLEGE 3			
Low	83	89%	66%
Middle	39	80	56
High	9	89	90
TOTAL	131	86%	65%
COLLEGE 4			
Low	126	72%	47%
Middle	-	-	-
High	-	-	-
TOTAL	126	72%	47%
COLLEGE 5			
Low	71	76%	52%
Middle	15	73	47
High	1	0	0
TOTAL	87	75%	51%
COLLEGE 7			
Low	7	71%	43%
Middle	25	64	8
High	14	64	7
TOTAL	46	65%	13%
COLLEGE 9			
Low	29	32%	48%
Middle	58	79	62
High	59	86	70
TOTAL	146	79%	62%
COLLEGE 16			
Low	28	86%	64%
Middle	52	90	48
High	17	76	53
TOTAL	97	87%	54%
COLLEGE 17			
Low	14	93%	57%
Middle	28	96	75
High	25	100	68
TOTAL	67	97%	69%
COLLEGE 19			
Low	12	92%	75%
Middle	14	93	50
High	1	100	100
TOTAL	27	93%	63%
COLLEGE 20			
Low	23	96%	100%
Middle	17	94	100
High	6	83	100
TOTAL	46	94%	100%
COLLEGE 21			
Low	16	100%	88%
Middle	8	100	100
High	2	100	100
TOTAL	26	100%	92%
COLLEGE 22			
Low	44	82%	55%
Middle	21	86	52
High	-	-	-
TOTAL	65	83%	54%
COLLEGE 23			
Low	35	94%	100%
Middle	21	90	100
High	-	-	-
TOTAL	56	93%	100%
COLLEGE 24			
Low	82	82	68
Middle	18	72	50
High	2	100	50
TOTAL	102	80%	65%
COLLEGE 26			
Low	22	64	27
Middle	9	67	44
High	1	100	100
TOTAL	32	66%	34%
COLLEGE 27			
Low	53	83%	54%
Middle	31	90	64
High	3	33	0
TOTAL	87	84%	56%
COLLEGE 28			
Low	1	100%	0
Middle	1	100	100%
High	1	100	100
TOTAL	3	100%	100%

Persistence Rates for Fall 1986 Remedial Writing Students by Success in Fall 1986 Remedial Writing Course

Success in Remedial Writing Course	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
COLLEGE 1					
Successful	162	94%	56%	52%	43%
Non-Successful	22	77	46	32	23
TOTAL	184	92%	55%	50%	40%
COLLEGE 7					
Successful	156	95%	75%	66%	47%
Non-Successful	31	84	52	39	10
TOTAL	187	93%	71%	62%	40%
COLLEGE 10					
Successful	154	90%	62%	52%	36%
Non-Successful	39	72	41	36	31
TOTAL	193	86%	58%	49%	35%
COLLEGE 14					
Successful	130	88%	63%	67%	51%
Non-Successful	72	60	46	42	32
TOTAL	202	78%	57%	58%	44%
COLLEGE 15					
Successful	169	86%	54%	52%	46%
Non-Successful	33	61	36	27	27
TOTAL	202	82%	52%	48%	43%
COLLEGE 19					
Successful	130	88%	65%	56%	44%
Non-Successful	46	61	44	35	17
TOTAL	176	80%	59%	51%	37%
COLLEGE 24					
Successful	109	88%	53%	52%	42%
Non-Successful	54	67	32	35	19
TOTAL	163	81%	46%	47%	34%
COLLEGE 26					
Successful	131	82%	61%	53%	34%
Non-Successful	11	64	55	55	18
TOTAL	142	81%	61%	53%	32%
COLLEGE 27					
Successful	85	94%	75%	20%	97%
Non-Successful	4	75	50	50	75
TOTAL	89	93%	74%	21%	96%
COLLEGE 28					
Successful	36	92%	86	92%	94%
Non-Successful	13	77	69	85	84
TOTAL	49	88%	82%	90%	92%

Persistence Rates for Fall 1987 Remedial Reading Students by Success in Fall 1987 Remedial Reading Course

Success in Fall 87 Reading Course	n	Spring 1988	Fall 1988
COLLEGE 2			
Successful	77	90%	66%
Non-Successful	23	65	52
TOTAL	100	84%	63%
COLLEGE 3			
Successful	110	93%	74%
Non-Successful	21	52	19
TOTAL	131	86%	65%
COLLEGE 4			
Successful	69	84%	55%
Non-Successful	57	52	37
TOTAL	126	72%	47%
COLLEGE 5			
Successful	77	81%	56%
Non-Successful	10	30	10
TOTAL	87	75%	51%
COLLEGE 7			
Successful	36	75%	17%
Non-Successful	10	30	0
TOTAL	46	65%	13%
COLLEGE 9			
Successful	115	88%	70%
Non-Successful	31	45	32
TOTAL	146	79%	62%
COLLEGE 16			
Successful	89	89%	56%
Non-Successful	8	63	25
TOTAL	97	87%	54%
COLLEGE 17			
Successful	57	100%	70%
Non-Successful	10	80	60
TOTAL	67	97%	69%
COLLEGE 19			
Successful	20	90%	65%
Non-Successful	7	100	57
TOTAL	27	93%	63%
COLLEGE 20			
Successful	45	93%	100%
Non-Successful	1	100	100
TOTAL	46	94%	100%
COLLEGE 21			
Successful	24	100%	92%
Non-Successful	2	100	100
TOTAL	26	100%	92%
COLLEGE 22			
Successful	61	85%	56%
Non-Successful	4	50	25
TOTAL	65	83%	54%
COLLEGE 23			
Successful	51	92%	100%
Non-Successful	5	100	100
TOTAL	56	93%	100%
COLLEGE 24			
Successful	94	82%	65%
Non-Successful	8	63	63
TOTAL	102	80%	65%
COLLEGE 26			
Successful	23	74%	39%
Non-Successful	9	44	22
TOTAL	32	66%	34%
COLLEGE 27			
Successful	79	86%	57%
Non-Successful	8	63	50
TOTAL	87	84%	56%
COLLEGE 28			
Successful	3	100%	67%
Non-Successful	-	-	-
TOTAL	3	100%	67%

Persistence Rates for Fall 1986 Remedial Writing Students by Ethnicity

Ethnicity	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988	Ethnicity	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
COLLEGE 1						COLLEGE 15					
Hispanic	26	96%	54%	62%	39%	Hispanic	50	90%	48%	40%	28%
Black	32	84	44	38	25	Black	22	73	32	32	32
Asian	11	91	73	73	55	Asian	21	91	48	52	48
White	100	93	54	46	42	White	71	79	62	56	52
Other	12	100	75	67	50	Other	36	81	50	47	47
Unknown	3	100	67	33	68	Unknown	2	50	50	50	50
TOTAL	184	92%	55%	50%	40%	TOTAL	202	82%	52%	48%	43%
COLLEGE 7						COLLEGE 19					
Hispanic	20	75%	60%	60%	20%	Hispanic	11	91%	73%	64%	46%
Black	10	100	80	70	40	Black	29	79	55	45	31
Asian	34	91	77	74	50	Asian	19	95	79	79	53
White	105	96	71	57	38	White	97	77	52	44	33
Other	18	94	72	61	61	Other	15	73	67	53	40
Unknown	-	-	-	-	-	Unknown	6	83	83	67	50
TOTAL	187	93%	71%	62%	41%	TOTAL	177	80%	59%	51%	37%
COLLEGE 10						COLLEGE 24					
Hispanic	16	88%	63%	63%	38%	Hispanic	52	77%	46%	52%	42%
Black	3	100	67	33	0	Black	14	86	43	36	14
Asian	45	96	56	42	40	Asian	4	75	50	25	25
White	121	82	57	50	35	White	83	82	45	45	35
Other	6	83	50	50	17	Other	8	88	63	50	13
Unknown	2	100	100	50	50	Unknown	2	100	0	100	50
TOTAL	193	86%	58%	49%	35%	TOTAL	163	81%	46%	47%	34%
COLLEGE 14						COLLEGE 26					
Hispanic	143	78%	55%	44%	57%	Hispanic	22	86%	77%	68%	41%
Black	5	60	60	40	60	Black	21	62	57	57	24
Asian	7	100	86	14	29	Asian	13	69	31	23	23
White	38	74	58	40	58	White	82	87	61	52	33
Other	7	86	57	57	57	Other	3	67	100	33	33
Unknown	2	100	100	0	50	Unknown	1	100	0	100	100
TOTAL	202	78%	57%	42%	56%	TOTAL	142	81%	61%	53%	32%

Persistence Rates for Fall 1986 Remedial Writing Students by Ethnicity

Ethnicity	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988	Ethnicity	n	Spring 1987	Fall 1987	Spring 1988	Fall 1988
COLLEGE 27						COLLEGE 28					
Hispanic	3	100%	67%	100%	100%	Hispanic	18	83%	67%	89%	100%
Black	2	100	50	100	50	Black	-	-	-	-	-
Asian	4	100	100	100	100	Asian	2	50	100	100	100
White	76	93	75	75	96	White	25	96	88	92	88
Other	4	75	50	100	100	Other	3	67	100	67	67
Unknown	-	-	-	-	-	Unknown	1	100	100	100	100
TOTAL	89	93%	74%	79%	96%	TOTAL	49	88%	82%	90%	92%

Persistence Rates for Fall 1987 Remedial Reading Students by Ethnicity

Ethnicity	n	Spring 1988	Fall 1988	Ethnicity	n	Spring 1988	Fall 1988	Ethnicity	n	Spring 1988	Fall 1988
COLLEGE 2				COLLEGE 7				COLLEGE 19			
Hispanic	36	94%	69%	Hispanic	16	63%	12%	Hispanic	5	100%	60%
Black	9	89	44	Black	1	0	0	Black	2	100	50
Asian	5	100	60	Asian	2	50	0	Asian	3	100	33
White	37	70	57	White	23	74	13	White	16	88	69
Other	11	91	82	Other	3	33	33	Other	1	100	100
Unknown	2	50	50	Unknown	1	100	0	Unknown	-	-	-
TOTAL	100	84%	63%	TOTAL	46	65%	13%	TOTAL	27	93%	63%
COLLEGE 3				COLLEGE 9				COLLEGE 20			
Hispanic	51	92%	61%	Hispanic	7	57%	57%	Hispanic	21	95%	100%
Black	12	92	83	Black	4	100	25	Black	2	100	100
Asian	15	87	80	Asian	2	100	50	Asian	-	-	-
White	37	78	65	White	121	79	62	White	20	95	100
Other	11	91	55	Other	9	78	78	Other	2	50	100
Unknown	5	60	40	Unknown	3	100	100	Unknown	1	100	100
TOTAL	131	86%	65%	TOTAL	146	79%	62%	TOTAL	46	94%	100%
COLLEGE 4				COLLEGE 16				COLLEGE 21			
Hispanic	17	65%	35%	Hispanic	7	100%	86%	Hispanic	-	-	-
Black	11	55	46	Black	19	84	63	Black	2	100%	50%
Asian	63	84	49	Asian	19	84	68	Asian	2	100	50
White	22	73	59	White	36	89	36	White	15	100	100
Other	11	28	27	Other	14	86	50	Other	5	100	100
Unknown	2	100	50	Unknown	2	50	50	Unknown	2	100	100
TOTAL	126	72%	47%	TOTAL	97	13%	54%	TOTAL	26	100%	92%
COLLEGE 5				COLLEGE 17				COLLEGE 22			
Hispanic	44	73%	55%	Hispanic	27	100%	59%	Hispanic	19	79%	63%
Black	4	75	75	Black	4	75	50	Black	45	84	51
Asian	28	82	50	Asian	2	100	100	Asian	-	-	-
White	8	75	38	White	32	97	78	White	1	100	0
Other	2	50	0	Other	2	100	50	Other	-	-	-
Unknown	1	0	0	Unknown	-	-	-	Unknown	-	-	-
TOTAL	87	75%	51%	TOTAL	67	97%	69%	TOTAL	65	83%	54%

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Persistence Rates for Fall 1987 Remedial Reading Students by Ethnicity

Ethnicity	n	Spring 1988	Fall 1988
COLLEGE 23			
Hispanic	27	96%	100%
Black	2	100	100
Asian	6	100	100
White	17	82	100
Other	2	100	100
Unknown	2	100	100
TOTAL	56	93%	100%
COLLEGE 24			
Hispanic	34	79%	56%
Black	13	85	85
Asian	26	85	77
White	26	77	54
Other	3	67	67
Unknown	-	-	-
TOTAL	105	80%	65%
COLLEGE 26			
Hispanic	8	63%	38%
Black	3	0	33
Asian	-	-	-
White	15	80	33
Other	5	60	20
Unknown	1	100	100
TOTAL	32	66%	34%
COLLEGE 27			
Hispanic	15	80%	47%
Black	1	100	100
Asian	12	83	83
White	52	85	50
Other	5	80	60
Unknown	2	100	100
TOTAL	87	84%	56%
COLLEGE 28			
Hispanic	-	-	-
Black	1	100	100
Asian	-	-	-
White	2	100	50
Other	-	-	-
Unknown	-	-	-
TOTAL	3	100%	67%

Former Remedial Writing Students Who Completed Freshman Composition by Success in Fall 1986 Remedial Writing Course

Success in Fall 86 Writing Course	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
		n	%	n	%	n	%	n	%
COLLEGE 1									
Successful	157	37	24%	12	8%	4	3%	53	34%
Non-Successful	20	0	0	0	0	1	5	1	5
TOTAL	177	37	21%	12	7%	5	3%	54	31%
COLLEGE 7									
Successful	147	48	33%	30	20%	14	10%	92	63%
Non-Successful	25	3	12	2	8	1	4	6	24
TOTAL	172	51	30%	32	19%	15	9%	98	57%
COLLEGE 10									
Successful	114	3	3%	15	13%	8	7%	26	23%
Non-Successful	35	0	0	6	17	1	3	7	20
TOTAL	149	3	2%	21	14%	9	6%	33	22%
COLLEGE 14									
Successful	116	45	39%	10	9%	6	5%	61	53%
Non-Successful	44	4	9	1	2	3	7	8	18
TOTAL	160	49	31%	11	7%	9	6%	69	43%
COLLEGE 15									
Successful	147	20	14%	10	7%	4	3%	34	23%
Non-Successful	21	0	0	0	0	0	0	0	0
TOTAL	168	20	12%	10	6%	4	2%	34	20%

Success in Fall 86 Writing Course	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
		n	%	n	%	n	%	n	%
COLLEGE 19									
Successful	72	69	92%	8	11%	6	8%	83	111%
Non-Successful	14	3	27	5	45	2	18	10	91
TOTAL	86	72	84%	13	15%	8	9%	93	108%
COLLEGE 24									
Successful	97	45	46%	4	4%	0	0%	49	51%
Non-Successful	36	5	14	2	6	1	3	8	22
TOTAL	133	50	38%	6	5%	1	1%	57	43%
COLLEGE 26									
Successful	108	40	37%	13	12%	12	11%	65	60%
Non-Successful	7	0	0	0	0	0	0	0	0
TOTAL	115	40	35%	13	11%	12	10%	65	57%
COLLEGE 27									
Successful	62	26	42%	17	27%	5	8%	48	77%
Non-Successful	10	3	30	4	40	0	0	7	70
TOTAL	72	29	40%	21	29%	5	7%	55	76%
COLLEGE 28									
Successful	90	35	39%	14	16%	2	2%	51	57%
Non-Successful	33	2	6	0	0	2	6	4	12
TOTAL	123	37	30%	14	11%	4	3%	55	45%

Former Remedial Writing Students Who Completed Freshman Composition by Fall 1986 Remedial Writing Course Level

Fall 86 Writing Course Level	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
COLLEGE 1		n	%	n	%	n	%	n	%
1 Level Below	139	37	27%	11	8%	4	3%	52	37%
2 Levels Below	38	0	0	1	3	1	3	2	5
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	177	37	21%	12	7%	5	3%	54	31%
COLLEGE 7									
1 Level Below	71	28	39%	6	8%	5	7%	39	55%
2 Levels Below	51	22	41	8	16	5	14	34	67
3 Levels Below	50	1	2	18	36	5	10	24	48
TOTAL	172	51	30%	32	19%	15	9%	98	57%
COLLEGE 10									
1 Level Below	28	1	4%	3	11%	0	0%	7	19%
2 Levels Below	73	0	0	10	14	8	11	18	25
3 Levels Below	48	2	4	8	17	1	2	11	23
TOTAL	149	3	2%	21	15%	9	6%	33	23%
COLLEGE 14									
1 Level Below	82	36	44%	8	10%	5	6%	49	60%
2 Levels Below	78	13	17	3	4	4	5	20	26
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	160	49	31%	11	7%	9	6%	69	43%
COLLEGE 15									
1 Level Below	77	20	26%	4	5%	3	4%	27	35%
2 Levels Below	91	0	0	6	7	1	1	7	8
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	168	20	12%	10	6%	4	2%	34	20%

Fall 86 Writing Course Level	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
COLLEGE 19		n	%	n	%	n	%	n	%
1 Level Below	72	64	88%	9	12%	5	7%	78	107%
2 Levels Below	14	8	62	4	31	3	23	15	115
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	86	72	84%	13	15%	8	9%	93	108%
COLLEGE 24									
1 Level Below	133	50	38%	6	5%	1	1%	57	43%
2 Levels Below	-	-	-	-	-	-	-	-	-
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	133	50	38%	6	5%	1	1%	57	43%
COLLEGE 26									
1 Level Below	48	33	69%	3	6%	2	4%	38	79%
2 Levels Below	67	7	10	10	15	10	15	27	40
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	115	40	35%	13	11%	12	10%	65	57%
COLLEGE 27									
1 Level Below	26	6	23%	10	38%	1	4%	17	65%
2 Levels Below	30	17	57	9	30	1	3	27	90
3 Levels Below	16	6	38	2	13	3	50	11	69
TOTAL	72	29	40%	21	29%	5	72%	55	76%
COLLEGE 28									
1 Level Below	79	33	42%	6	8%	3	4%	42	53%
2 Levels Below	44	4	9	8	18	1	2	13	30
3 Levels Below	-	-	-	-	-	-	-	-	-
TOTAL	123	37	30%	14	11%	4	3%	55	45%

Former Remedial Writing Students Who Completed Freshman Composition by Ethnicity

Ethnicity	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
		n	%	n	%	n	%	n	%
COLLEGE 1									
Hispanic	24	6	25%	2	8%	0	0	8	33%
Black	31	5	16	1	3	0	0	6	19
Asian	11	1	9	2	18	2	18%	5	45
White	96	20	21	6	6	3	3	29	30
Other	12	4	33	0	0	0	0	4	33
Unknown	3	1	33	1	33	0	0	2	67
TOTAL	177	37	21%	12	7%	5	3%	54	31%
COLLEGE 7									
Hispanic	14	1	7%	1	7%	3	21%	5	36%
Black	10	5	50	1	10	2	20	8	80
Asian	30	8	27	6	20	0	0	14	47
White	101	30	30	20	20	8	8	58	57
Other	17	7	41	4	24	2	12	13	76
Unknown	0	-	-	-	-	-	-	-	-
TOTAL	172	51	30%	32	19%	15	9%	98	57%
COLLEGE 10									
Hispanic	14	0	0	3	21%	1	7%	4	29%
Black	3	0	0	1	33	1	33	2	67
Asian	33	1	3%	3	9	4	12	8	24
White	97	2	2	14	14	2	2	18	19
Other	1	0	0	0	0	0	0	1	100
Unknown	1	0	0	0	0	1	100	0	0
TOTAL	149	3	2%	21	14%	9	5%	33	21%
COLLEGE 14									
Hispanic	114	30	26%	7	6%	5	4%	42	37%
Black	4	0	0	0	0	0	0	0	0
Asian	6	2	33	0	0	2	33	4	67
White	29	13	45	4	14	2	7	19	66
Other	5	3	60	0	0	0	0	3	60
Unknown	2	1	50	0	0	0	0	1	50
TOTAL	160	49	31%	11	7%	9	6%	69	43%

Ethnicity	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
		n	%	n	%	n	%	n	%
COLLEGE 15									
Hispanic	46	4	9%	0	0%	2	4%	6	13%
Black	18	1	6	0	0	0	0	1	6
Asian	19	2	11	1	5	0	0	3	16
White	54	12	22	6	11	2	4	20	37
Other	30	1	3	2	7	0	0	3	10
Unknown	1	0	0	1	100	0	0	1	100
TOTAL	168	20	12%	10	6%	4	2%	34	20%
COLLEGE 19									
Hispanic	4	4	100%	2	50%	2	50%	8	200%
Black	14	10	71	4	29	0	0	14	100
Asian	10	7	70	1	10	2	20	10	100
White	48	43	90	4	8	3	6	50	104
Other	7	5	71	1	14	1	14	7	100
Unknown	3	3	100	1	33	0	0	4	133
TOTAL	86	72	84%	13	15%	8	9%	93	108%
COLLEGE 24									
Hispanic	39	12	31%	2	5%	0	0%	14	36%
Black	13	1	8	2	15	1	8	4	31
Asian	2	1	50	0	0	0	0	1	50
White	71	33	46	1	1	0	0	34	48
Other	6	2	33	1	17	0	0	3	50
Unknown	2	1	50	0	0	0	0	1	50
TOTAL	133	50	38%	6	5%	1	1%	57	43%
COLLEGE 26									
Hispanic	18	2	11%	1	6%	3	17%	6	33%
Black	14	4	29	1	7	2	14	7	50
Asian	9	3	33	2	22	1	11	6	67
White	71	29	41	9	13	6	8	44	62
Other	2	2	100	0	0	0	0	2	100
Unknown	1	0	0	0	0	0	0	0	0
TOTAL	115	40	35%	13	11%	12	10	65	57%

Former Remedial Writing Students Who Completed Freshman Composition by Ethnicity

Ethnicity	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
COLLEGE 27		n	%	n	%	n	%	n	%
Hispanic	4	2	50%	3	75%	0	0%	5	125%
Black	1	1	100	0	0	0	0	1	100
Asian	6	2	33	4	67	1	17	7	117
White	57	24	42	13	23	4	7	41	72
Other	2	0	0	1	50	0	0	1	50
Unknown	2	0	0	0	0	0	0	0	0
TOTAL	72	29	40%	21	29%	5	7%	55	76%

Ethnicity	n	Spring 1987		Fall 1987		Spring 1988		TOTAL	
COLLEGE 28		n	%	n	%	n	%	n	%
Hispanic	44	7	16%	7	16%	3	7%	17	39%
Black	2	1	50	0	0	0	0	1	50
Asian	5	1	20	0	0	0	0	1	20
White	61	24	39	7	11	1	2	32	52
Other	6	4	67	0	0	0	0	4	67
Unknown	5	0	0	0	0	0	0	0	0
TOTAL	123	37	30%	14	11%	4	3%	55	45%

Fall 1987 Remedial Reading Students Enrolled in Reading Course Fall 1988 by Pre-Test Percentile Group

Pre-Test Percentile Group	n	Enrolled Reading Fall 1988 Yes n	Yes %	No n	No %
COLLEGE 3					
Low	82	13	16%	69	84%
Middle	37	2	5	35	95
High	9	0	0	9	100
TOTAL	129	15	12%	114	88%
COLLEGE 4					
Low	100	24	24%	76	76%
Middle	-	-	-	-	-
High	-	-	-	-	-
TOTAL	100	24	24%	76	76%
COLLEGE 5					
Low	38	11	29%	27	71%
Middle	7	3	43	4	57
High	-	-	-	-	-
TOTAL	45	14	31%	31	69%
COLLEGE 19					
Low	11	2	18%	9	82%
Middle	14	0	0	14	100
High	1	0	0	1	100
TOTAL	26	2	8%	24	92%
COLLEGE 21					
Low	16	2	13%	14	88%
Middle	7	0	0	7	100
High	1	0	0	1	100
TOTAL	24	2	8%	22	92%

Pre-Test Percentile Group	n	Enrolled in Reading Fall 1988 Yes n	Yes %	No n	No %
COLLEGE 23					
Low	35	4	11%	31	89%
Middle	21	1	5	20	95
High	-	-	-	-	-
TOTAL	56	5	9%	51	91%
COLLEGE 24					
Low	63	25	40%	38	60%
Middle	14	4	29	10	71
High	1	1	100	0	0
TOTAL	78	30	39%	48	62%
COLLEGE 26					
Low	22	1	5%	21	96%
Middle	9	0	0	9	100
High	1	0	0	1	100
TOTAL	32	1	3%	31	97%
COLLEGE 27					
Low	49	4	8%	45	92%
Middle	28	4	14	24	86
High	3	0	0	3	100
TOTAL	80	8	10%	72	90%
COLLEGE 28					
Low	1	-	-	1	100%
Middle	2	-	-	2	100
High	1	-	-	1	100
TOTAL	4	-	-	4	100%

Percentage of Non-Remedial Units Enrolled In for Fall 1986 Remedial Writing Course Students by Fall 1986 Remedial Writing Course Level

Fall 1986 Writing Course Level		Percentage of Non-Remedial Units Enrolled In				
		Fall 86	Spring 87	Fall 87	Spring 88	Fall 88
COLLEGE 1						
3 Levels Below						
2 Levels Below	n= 39	48%	94%	94%	94%	99%
1 Level Below	n=119	97	98	99	100	100
TOTAL	n=158	85%	97%	98%	99%	99%
Av. # of Non-Remedial Units		11	13	7	5	5
COLLEGE 7						
3 Levels Below	n= 58	65%	80%	96%	100%	100%
2 Levels Below	n= 58	62	93	99	99	99
1 Level Below	n= 36	72	96	98	98	99
TOTAL	n=196	67%	90%	97%	99%	99%
Av. # of Non-Remedial Units		9	11	9	8	5
COLLEGE 10						
3 Levels Below	n= 57	98%	99%	97%	100%	100%
2 Levels Below	n= 81	63	94	99	100	93
1 Level Below	n= 36	99	100	100	100	100
TOTAL	n=174	82%	97%	99%	100%	97%
Av. # of Non-Remedial Units		10	11	9	6	3
COLLEGE 14						
3 Levels Below						
2 Levels Below	n= 78	45%	66%	98%	97%	99%
1 Level Below	n= 72	53	72	99	98	100
TOTAL	n=150	49%	69%	98%	98%	100%
Av. # of Non-Remedial Units		6	8	10	7	6
COLLEGE 15						
3 Levels Below						
2 Levels Below	n=105	59%	85%	99%	98%	97%
1 Level Below	n= 91	96	97	97	97	100
TOTAL	n=196	76%	91%	98%	98%	99%
Av. # of Non-Remedial Units		10	10	7	6	5

Percentage of Non-Remedial Units Enrolled In for Fall 1987 Remedial Reading Course Students by Pre-Test Percentile Group
Stanford Diagnostic Test Group

Pre-Test Percentile Group		Fall 87	Spring 88	Fall 88
COLLEGE 3				
Low	n= 83	33%	51%	50%
Middle	n= 39	41	55	47
High	n= 9	20	76	86
TOTAL	n=131	37%	54%	52%
Av. # Non-Remedial Units		4	6	5
COLLEGE 4				
Low	n=108	51%	59%	42%
Middle	-	-	-	-
High	-	-	-	-
TOTAL	n=108	51%	59%	42%
Av. # Non-Remedial Units		7	8	6
COLLEGE 5				
Low	n= 64	27%	55%	46%
Middle	n= 12	31	60	50
High	n= 1	43	0	0
TOTAL	n= 77	28%	55%	46%
Av. # Non-Remedial Units		4	6	5
COLLEGE 19				
Low	n= 18	49%	37%	42%
Middle	n= 21	79	47	49
High	n= 2	75	50	75
TOTAL	n= 41	65%	43%	47%
Av. # Non-Remedial Units		8	5	4
COLLEGE 21				
Low	n= 18	62%	87%	72%
Middle	n= 8	68	90	89
High	n= 2	84	100	100
TOTAL	n= 28	65%	89%	79%
Av. # Non-Remedial Units		9	13	9

Pre-Test Percentile Group		Fall 87	Spring 88	Fall 88
COLLEGE 23				
Low	n= 35	59%	82%	91%
Middle	n= 22	59	78	92
High	-	-	-	-
TOTAL	n= 57	59%	81%	91%
Av. # Non-Remedial Units		8	10	11
COLLEGE 24				
Low	n= 82	54%	67%	52%
Middle	n= 18	58	53	38
High	n= 2	89	79	21
TOTAL	n=102	56%	65%	49%
Av. # Non-Remedial Units		7	8	6
COLLEGE 26				
Low	n= 22	56%	42%	24%
Middle	n= 10	73	53	45
High	n= 1	70	100	100
TOTAL	n= 33	62%	47%	33%
Av. # Non-Remedial Units		7	5	4
COLLEGE 27				
Low	n= 53	43%	68%	43%
Middle	n= 31	45	81	51
High	n= 3	35	33	0
TOTAL	n= 87	43%	71%	44%
Av. # Non-Remedial Units		6	9	5
COLLEGE 28				
Low	n= 1	0%	0%	0%
Middle	n= 1	21	50	100
High	n= 1	0	44	100
TOTAL	n= 3	7%	32%	67%
Av. # Non-Remedial Units		1	3	7

Percentage of Non-Remedial Units Enrolled In for Fall 1987 Remedial Reading Course Students by Pre-Test Percentile Group NJBSCT Group

Pre-Test Percentile Group		Fall 1987	Spring 1988	Fall 1988
COLLEGE 2				
Low	n= 24	23%	63%	46%
Middle	n= 55	23	71	69
High	n= 24	19	71	46
TOTAL	n=103	22%	69%	58%
Av. # Non-Remedial Units		2	7	7
COLLEGE 7				
Low	n= 7	38%	31%	26%
Middle	n= 25	54	52	6
High	n= 14	67	64	7
TOTAL	n= 46	55%	53%	10%
Av. # Non-Remedial Units		6	5	1
COLLEGE 9				
Low	n= 29	63%	57%	47%
Middle	n= 58	76	77	62
High	n= 59	88	84	70
TOTAL	n=146	78%	76%	62%
Av. # Non-Remedial Units		9	9	8
COLLEGE 16				
Low	n= 24	60%	83%	61%
Middle	n= 47	47	84	48
High	n= 13	58	97	54
TOTAL	n= 84	52%	86%	52%
Av. # Non-Remedial Units		6	10	5
COLLEGE 17				
Low	n= 22	48%	54%	50%
Middle	n= 41	50	58	65
High	n= 29	59	84	66
TOTAL	n= 92	52%	65%	62%
Av. # Non-Remedial Units		7	8	7
COLLEGE 20				
Low	n= 24	59%	79%	81%
Middle	n= 17	52	85	93
High	n= 6	55	83	100
TOTAL	n= 47	56%	81%	88%
Av. # Non-Remedial Units		7	10	11
COLLEGE 22				
Low	n= 44	42%	45%	41%
Middle	n= 22	42	56	42
High	-	-	-	-
TOTAL	n= 66	42%	48%	41%
Av. # Non-Remedial Units		5	5	4

Percentage of Non-Remedial Units Enrolled In for Fall 1986 Remedial Writing Course Students by Fall 1986 Remedial Writing Course Level

Fall 1986 Writing Course Level		Percentage of Non-Remedial Units Enrolled In				
		Fall 86	Spring 87	Fall 87	Spring 88	Fall 88
COLLEGE 19						
3 Levels Below						
2 Levels Below	n= 30	48%	83%	94%	97%	95%
1 Level Below	n=110	93	98	95	95	99
TOTAL	n=140	82%	95%	95%	95%	98%
Av. # of Non-Remedial Units		9	11	8	6	4
COLLEGE 24						
3 Levels Below						
2 Levels Below						
1 Level Below	n=130	91%	100%	100%	96%	100%
TOTAL	n=130	91%	100%	100%	96%	100%
Av. # of Non-Remedial Units		11	10	6	5	4
COLLEGE 26						
3 Levels Below						
2 Levels Below	n= 82	51%	72%	77%	91%	96%
1 Level Below	n= 53	59	82	80	94	97
TOTAL	n=135	54%	76%	78%	92%	97%
Av. # of Non-Remedial Units		8	8	7	6	4
COLLEGE 27						
3 Levels Below	n= 10	59%	68%	94%	76%	80%
2 Levels Below	n= 27	60	74	93	88	93
1 Level Below	n= 27	70	90	97	95	96
TOTAL	n= 64	64%	80%	95%	89%	92%
Av. # of Non-Remedial Units		9	10	10	11	10
COLLEGE 28						
3 Levels Below						
2 Levels Below	n= 12	73%	75%	89%	98%	100%
1 Level Below	n= 33	95	99	98	100	100
TOTAL	n= 45	89%	93%	96%	100%	100%
Av. # of Non-Remedial Units		13	12	12	12	10

Grade Point Average Distribution for Fall 1986 Remedial Writing Students
Fall 1986 through Spring 1988

GPA	Fall 1986	Spring 1987	Fall 1987	Spring 1988	GPA	Fall 1986	Spring 1987	Fall 1987	Spring 1988
COLLEGE 1					COLLEGE 19				
<1.0	2%	4%	1%	0%	<1.0	6%	8%	3%	1%
1.0-1.9	13	18	23	24	1.0-1.9	18	16	14	16
2.0-2.9	57	53	40	48	2.0-2.9	44	41	48	42
3.0-3.9	25	20	32	20	3.0-3.9	24	30	32	34
4.0	2	5	5	8	4.0	8	5	3	7
COLLEGE 7					COLLEGE 24				
<1.0	5%	5%	2%	4%	<1.0	7%	10%	5%	7%
1.0-1.9	24	20	15	11	1.0-1.9	17	23	30	26
2.0-2.9	55	50	53	62	2.0-2.9	41	35	29	40
3.0-3.9	13	21	28	20	3.0-3.9	25	22	30	16
4.0	3	4	2	3	4.0	10	9	6	11
COLLEGE 10					COLLEGE 26				
<1.0	6%	3%	2%	0%	<1.0	1%	1%	0%	0%
1.0-1.9	19	17	18	20	1.0-1.9	13	16	18	18
2.0-2.9	37	37	44	42	2.0-2.9	45	45	55	44
3.0-3.9	28	36	23	30	3.0-3.9	38	34	17	26
4.0	11	6	12	8	4.0	4	5	10	11
COLLEGE 14					COLLEGE 27				
<1.0	7%	5%	5%	3%	<1.0	3%	1%	3%	2%
1.0-1.9	22	16	17	15	1.0-1.9	12	16	27	14
2.0-2.9	36	47	51	45	2.0-2.9	48	47	38	50
3.0-3.9	30	23	23	30	3.0-3.9	32	29	25	31
4.0	5	6	4	7	4.0	6	6	8	3
COLLEGE 15					COLLEGE 28				
<1.0	1%	6%	3%	4%	<1.0	11%	6%	8%	5%
1.0-1.9	20	24	25	18	1.0-1.9	19	23	17	24
2.0-2.9	45	44	50	45	2.0-2.9	43	47	46	51
3.0-3.9	25	26	22	27	3.0-3.9	26	22	21	13
4.0	8	4	0	7	4.0	1	6	8	8

Grade Point Average Distribution for Fall 1987 Remedial Reading Students
Spring 1988

Spring 88 GPA	College 2	College 3	College 4	College 5	College 7	College 9	College 17	College 19	College 20
<1.0	1%	0%	1%	4%	3%	5%	10%	8%	22%
1.0-1.9	15	24	16	24	23	21	26	27	16
2.0-2.9	50	39	52	46	51	51	44	31	28
3.0-3.9	24	27	25	17	19	22	18	27	24
4.0	9	10	6	9	3	2	2	8	9

Spring 88 GPA	College 21	College 22	College 23	College 24	College 26	College 27	College 28
<1.0	3%	2%	4%	3%	0%	3%	0%
1.0-1.9	36	18	25	26	13	15	0
2.0-2.9	26	41	47	50	54	52	60
3.0-3.9	32	30	23	17	29	25	40
4.0	3	9	1	5	4	6	0

College Enrollment Status for Fall 1986 Remedial Writing Course Students in Fall 1988 by Employment Status*

College Enrollment	Employment Status			
	working full-time	working part-time	not working	TOTAL
COLLEGE 1	n=21	n=14	n=16	n=51
Yes,community coll.	24%	36%	13%	24%
Yes,four-year coll.	14	43	50	33
yes,other	5	7	6	6
No,not in college	57	14	31	37
TOTAL	41%	28%	31%	100%
COLLEGE 14	n=25	n=11	n=11	n=47
Yes,community coll.	12%	46%	9%	19%
Yes,four-year coll.	0	18	18	9
Yes,other college	0	9	0	2
No,not in college	88	27	73	70
TOTAL	53%	23%	23%	100%
COLLEGE 19	n=19	n= 6	n= 6	n=31
Yes,community coll.	11%	33%	50%	23%
Yes,four-year coll.	0	17	17	7
Yes,other college	-	-	-	-
No,not in college	90	50	33	71
TOTAL	61%	19%	19%	100%
COLLEGE 27	n=30	n=14	n=16	n=60
Yes,community coll.	0%	21%	38%	15%
Yes,four-year coll.	10	21	19	15
Yes,other college	-	-	-	-
No,not in college	90	57	44	70
TOTAL	50%	23%	27%	100%
COLLEGE 28	n=18	n= 8	n= 9	n=35
Yes,community coll.	11%	75%	11%	26%
Yes,four-year coll.	0	13	33	11
Yes,other college	-	-	-	-
No,not in college	89	13	56	63
TOTAL	51%	23%	26%	100%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Employment Status*

College Enrollment	Employment Status				College Enrollment	Employment Status			
	working full-time	working part-time	not working	TOTAL		working full-time	working part-time	not working	TOTAL
COLLEGE 2	n=13	n= 5	n= 8	n=26	COLLEGE 9	n= 2	n= 3	n= 3	n= 8
Yes,community coll.	8%	40%	0%	12%	Yes,community coll.	0%	33%	0%	13%
Yes,four-year coll.	8	20	0	8	Yes,four-year coll.	-	-	-	-
yes,other	15	0	13	12	Yes,other college	0	33	0	13
No,not in college	69	40	88	69	No,not in college	100	33	100	75
TOTAL	50%	19%	31	100	TOTAL	25%	38%	38%	100%
COLLEGE 3	n=20	n= 3	n= 5	n=28	COLLEGE 16	n=10	n= 5	n= 4	n=19
Yes,community coll.	5%	0%	40%	11%	Yes,community coll.	20%	20%	0%	16%
Yes,four-year coll.	-	-	-	-	Yes,four-year coll.	-	-	-	-
Yes,other college	0	0	20	4	Yes,other college	-	-	-	-
No,not in college	95	100	40	86	No,not in college	80	80	100	84
TOTAL	71%	11%	18%	100%	TOTAL	53%	26%	21%	100%
COLLEGE 4	n= 8	n= 9	n=24	n=41	COLLEGE 19	n= 5	n= 1	n= 1	n= 7
Yes,community coll.	-	-	-	-	Yes,community coll.	-	-	-	-
Yes,four-year coll.	0%	0%	13%	7%	Yes,four-year coll.	-	-	-	-
Yes,other college	0	22	0	5	Yes,other college	-	-	-	-
No,not in college	100	18	88	88	No,not in college	100%	100%	100%	100%
TOTAL	20%	22%	59%	100%	TOTAL	71%	14%	14%	100%
COLLEGE 5	n= 9	n= 1	n= 3	n=13	COLLEGE 20	n=13	n= 1	n= 8	n=22
Yes,community coll.	22%	100%	33%	31%	Yes,community coll.	8%	0%	25%	14%
Yes,four-year coll.	-	-	-	-	Yes,four-year coll.	0	100	0	5
Yes,other college	-	-	-	-	Yes,other college	-	-	-	-
No,not in college	78	0	67	69	No,not in college	92	0	75	82
TOTAL	69%	78%	23%	100%	TOTAL	59%	5%	36%	100%
COLLEGE 7	n=16	n= 6	n= 4	n=26	COLLEGE 22	n= 3	n= 1	n= 3	n= 7
Yes,community coll.	6%	67%	25%	23%	Yes,community coll.	-	-	-	-
Yes,four-year coll.	-	-	-	-	Yes,four-year coll.	-	-	-	-
Yes,other college	6	33	50	19	Yes,other college	-	-	-	-
No,not in college	88	0	25	58	No,not in college	100%	100%	100%	100%
TOTAL	62%	23%	15%	100%	TOTAL	43%	14%	43%	100%

*for students who were no longer enrolled in study communtiy college and who responded to questionnaire/interview.

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Employment Status*

College Enrollment	Employment Status			
	working full-time	working part-time	not working	TOTAL
COLLEGE 23	n= 6	n= 2	n= 3	n=11
Yes,community coll.	0%	0%	33%	9%
Yes,four-year coll.	-	-	-	-
yes,other	0	50	0	9
No,not in college	100	50	67	82
TOTAL	55%	18%	27%	100%
COLLEGE 27	n= 4	n= 3	n= 7	n=14
Yes,community coll.	25%	33%	0%	14%
Yes,four-year coll.	25	0	29	21
Yes,other college	-	-	-	-
No,not in college	50	67	71	64
TOTAL	29%	21%	50%	100%

College Enrollment	Employment Status			
	working full-time	working part-time	not working	TOTAL
COLLEGE 28	n= 1	n= 1		n= 2
Yes,community coll.	-	-		-
Yes,four-year coll.	-	-		-
Yes,other college	-	-		-
No,not in college	100%	100%		100%
TOTAL	50%	50%		100%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

College Enrollment Status for Fall 1986 Remedial Writing Course Students in Fall 1988 by Educational Goal in Fall 1986*

College Enrollment	Fall 1986 Educational Goal			College Enrollment	Fall 1986 Educational Goal		
	Transfer-Related	Other	TOTAL		Transfer-Related	Other	TOTAL
COLLEGE 1	n=42	n=10	n=52	COLLEGE 27	n=30	n=31	n=61
Yes,community coll.	21%	30%	23%	Yes,community coll.	13%	16%	15%
Yes,four-year coll.	41	0	33	Yes,four-year coll.	27	3	15
yes,other	2	20	6	Yes,other college	-	-	-
No,not in college	36	50	39	No,not in college	60	81	71
TOTAL	81%	19%	100%	TOTAL	49%	51%	100%
COLLEGE 14	n=35	n=17	n=52	COLLEGE 28	n=14	n=22	n=36
Yes,community coll.	14%	24%	17%	Yes,community coll.	29%	23%	25%
Yes,four-year coll.	17	12	15	Yes,four-year coll.	7	18	14
Yes,other college	3	0	2	Yes,other college	-	-	-
No,not in college	66	65	65	No,not in college	64	59	61
TOTAL	67%	33%	100%	TOTAL	39%	61%	100%
COLLEGE 19	n=18	n=13	n=31				
Yes,community coll.	22%	23%	23%				
Yes,four-year coll.	0	15	7				
Yes,other college	-	-	-				
No,not in college	78	62	71				
TOTAL	58%	42%	100%				

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Educational Goal in Fall 1987*

College Enrollment	Fall 1987 Educational Goal			College Enrollment	Fall 1987 Educational Goal		
	Transfer-Related	Other	TOTAL		Transfer-Related	Other	TOTAL
COLLEGE 2	n=20	n= 4	n=24	COLLEGE 9	n= 6	n= 2	n= 8
Yes,community coll.	15%	0%	13%	Yes,community coll.	-	-	-
Yes,four-year coll.	10	0	8	Yes,four-year coll.	-	-	-
yes,other	15	0	13	Yes,other college	17%	0%	13%
No,not in college	60	100	67	No,not in college	83	100	88
TOTAL	83%	17%	100%	TOTAL	75%	25%	100%
COLLEGE 3	n=16	n= 5	n=21	COLLEGE 16	n= 6	n= 7	n=13
Yes,community coll.	13%	0%	10%	Yes,community coll.	17%	29%	23%
Yes,four-year coll.	-	-	-	Yes,four-year coll.	-	-	-
Yes,other college	6	0	5	Yes,other college	-	-	-
No,not in college	81	100	86	No,not in college	83	71	77
TOTAL	76%	24%	100%	TOTAL	46%	54%	100%
COLLEGE 4	n=15	n=15	n=30	COLLEGE 17	n= 1		n= 1
Yes,community coll.	-	-	-	Yes,community coll.	-		-
Yes,four-year coll.	7%	0%	3%	Yes,four-year coll.	-		-
Yes,other college	7	7	7	Yes,other college	-		-
No,not in college	87	93	90	No,not in college	100		100%
TOTAL	50%	50%	100%	TOTAL	100%		100%
COLLEGE 5	n= 7	n= 7	n=14	COLLEGE 19	n= 4	n= 3	n= 7
Yes,community coll.	14%	29%	21%	Yes,community coll.	25%	0%	14%
Yes,four-year coll.	-	-	-	Yes,four-year coll.	-	-	-
Yes,other college	-	-	-	Yes,other college	-	-	-
No,not in college	86	71	79	No,not in college	75	100	86
TOTAL	50%	50%	100%	TOTAL	57%	43%	100%
COLLEGE 7	n=16	n= 7	n=23	COLLEGE 20	n=10	n=11	n=21
Yes,community coll.	31%	0%	22%	Yes,community coll.	30%	0%	14%
Yes,four-year coll.	-	-	-	Yes,four-year coll.	0	9	5
Yes,other college	25	14	22	Yes,other college	-	-	-
No,not in college	44	86	57	No,not in college	70	91	81
TOTAL	70%	30%	100%	TOTAL	48%	52%	100%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

College Enrollment Status for Fall 1987 Remedial Reading Course Students in Fall 1988 by Educational Goal in Fall 1987*

College Enrollment	Fall 1987 Educational Goal			College Enrollment	Fall 1987 Educational Goal		
	Transfer-Related	Other	TOTAL		Transfer-Related	Other	TOTAL
COLLEGE 21	n= 1		n= 1	COLLEGE 27	n= 7	n= 5	n=12
Yes,community coll.	-		-	Yes,community coll.	29%	0%	17%
Yes,four-year coll.	-		-	Yes,four-year coll.	29	0	17
yes,other	-		-	Yes,other college	-	-	-
No,not in college	100%		100%	No,not in college	43	100	67
TOTAL	100%		100%	TOTAL	58%	42%	100%
COLLEGE 22	n= 5	n= 2	n= 7	COLLEGE 28	n= 1	n= 1	n= 2
Yes,community coll.	-	-	-	Yes,community coll.	-	-	-
Yes,four-year coll.	-	-	-	Yes,four-year coll.	-	-	-
Yes,other college	-	-	-	Yes,other college	-	-	-
No,not in college	100%	100%	100%	No,not in college	100%	100%	100%
TOTAL	71%	29%	100%	TOTAL	50%	50%	100%
COLLEGE 23	n= 5	n= 3	n= 8				
Yes,community coll.	20%	0%	13%				
Yes,four-year coll.	-	-	-				
Yes,other college	-	-	-				
No,not in college	80	100	88				
TOTAL	63%	38%	100%				

*for students who were no longer enrolled in study communtiy college and who responded to questionnaire/interview.

Students "Reading More Now or Finding Reading More Enjoyable" by Pre-Test Percentile Group* Stanford Diagnostic Test Group

Pre-Test Percentile Groups	n	Read More Now/Reading More Enjoyable: Yes	No	Other/ Don't Know
COLLEGE 3				
Low	17	88%	6%	6%
Middle	11	64	27	9
High	1	100	0	0
TOTAL	29	79%	14%	7%
COLLEGE 4				
Low	40	80%	5%	15%
Middle				
High				
TOTAL	40	80%	5%	15%
COLLEGE 5				
Low	13	92%	0%	8%
Middle	3	33	67	0
High				
TOTAL	16	81%	13%	16%
COLLEGE 19				
Low	1	0%	100%	0
Middle	4	100	0	0
High				
TOTAL	5	80%	20%	0

Pre-Test Percentile Groups	n	Read More Now/Reading More Enjoyable: Yes	No	Other/ Don't Know
COLLEGE 23				
Low	4	100%	0%	0
Middle	3	33	67	0
High	2	100	0	0
TOTAL	9	78%	22%	0%
COLLEGE 27				
Low	9	78%	11%	11%
Middle	5	40	40	20
High				
TOTAL	14	64%	21%	14%
COLLEGE 28				
Low				
Middle	1	100%	0	0
High	1	100	0	0
TOTAL	2	100%	0	0

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

Students "Reading More Now or Finding Reading More Enjoyable" by Pre-Test Percentile Group* NJBSCT Group

Pre-Test Percentile Groups	n	Read More Now/Reading More Enjoyable: Yes	No	Other/ Don't Know
COLLEGE 2				
Low	6	83%	17%	0%
Middle	12	83	17	0
High	9	78	11	11
TOTAL	27	82%	15%	4%
COLLEGE 7				
Low	3	0%	67%	33%
Middle	12	75	17	8
High	8	50	50	0
TOTAL	23	57%	35%	8%
COLLEGE 9				
Low	3	67%	23%	0%
Middle	3	33	67	0
High	2	50	50	0
TOTAL	8	50%	50%	0%
COLLEGE 16				
Low	3	67%	0%	33%
Middle	8	100	0	0
High	3	67	33	0
TOTAL	14	86%	7%	7%
COLLEGE 20				
Low	9	67%	11%	22%
Middle	5	40	20	40
High	4	100	0	0
TOTAL	18	67%	11%	22%
COLLEGE 22				
Low	5	60%	20%	20%
Middle	1	0	0	100
High				
TOTAL	6	50%	17%	33%

*for students who were no longer enrolled in study community college and who responded to questionnaire/interview.

Appendix C

LARC

Student Outcomes Study Chronology

Student Outcomes & Curriculum Studies
Chronology
1986-1989

1. Student Outcomes Study, Year 1/Writing, Fall 1986, 29 colleges, 7500 students, directed by Julie Slark, preliminary and final report available.

2. Writing Curriculum Study, Fall 1986, directed by Mary Ann Cox.

3. Student Outcomes Follow-up Study, Fall 1987, directed by Julie Slark, final report available.

4. Student Outcomes Study, Policy Paper #1, March 1988, available.

5. Student Outcomes Study, Year 2/Reading, Fall 1987, 28 colleges 3500 students, directed by Julie Slark, preliminary and final report available.

6. Reading Curriculum Study, Fall 1987, directed by Bob Barr and Carol Bogue, available.

7. Student Outcomes Study,Year 3/Math, Fall 1988, 23 colleges, 11,275 students directed by Bob Barr, final report available Fall 1989.

8. Student Outcomes & Curriculum Studies Policy Paper #2, March 1989, available.

9. Student Outcomes Follow-up Study, Fall 1988, directed by Julie Slark, available.

Appendix D

LARC

Background and Description

LARC
Learning, Assessment, Retention Consortium of California

INTRODUCTION

Increasing student success is a major goal of the California community colleges. This goal is also the focus of LARC, the Learning, Assessment, Retention Consortium. Toward this goal, LARC provides a network for individual community colleges to address three major themes: 1) learning, 2) assessment, and 3) retention. Originating in 1981 with fourteen colleges in Northern California, the Consortium now includes six regional groups with more than 80 institutions comprising the LARC State Network in California. Each regional group is an autonomous consortium of colleges with its own officers, operating principles, and agenda. The common purpose of these groups is to translate concerns about student learning into action.

The original goal of the Consortium was to examine assessment as a framework for improving learning and retention. Four goals now guide LARC Network activities:

1. To maintain an information network among the member colleges.
2. To conduct and coordinate research activities.
3. To continue to refine comprehensive assessment/placement/retention models for member colleges.
4. To involve staff at all levels in college networks through participation in steering committees, college teams, and research projects

LARC COLLEGES

- Participate in statewide research and develop service delivery models in assessment, placement, and retention.
- Develop local and regional short- and long-term goals to improve student success.
- Develop college teams for assessment, placement, and retention.
- Contribute resources to promote training, staff development, and networking.
- Send representatives to the LARC Statewide Steering Committee.

LARC RESEARCH

- Cooperative data collection, including information on college practices in learning skills and assessment/placement activities.
- Student outcomes, follow-up, and curriculum studies in reading, writing, mathematics.

LARC ACTIVITIES

- **COLLEGE TEAMS/PLANS:** Many LARC colleges have organized a team of faculty and staff to develop a college plan related to learning, retention, assessment, placement and guidance. Teams review LARC data and information to apply to their own college's needs.
- **MUTUAL ASSISTANCE:** Through frequent contact, colleges receive information from colleagues who have established programs or plans which they might replicate.
- **STATEWIDE/REGIONAL WORKSHOPS:** Workshops or conferences are planned to consider issues or develop concepts useful to the member colleges. Topics have included legal issues, holistic scoring, research, evaluation, retention, assessment/ placement, student outcomes, and basic skills.
- **ADVOCACY:** Working with policy-makers and statewide agencies, LARC monitors and influences educational policy.

SELECTED RESEARCH PUBLICATIONS

- *1982-85 Program Guides*
- *Matriculation Practices*, Kangas, 1986
- *LARC Student Outcomes Study Final Report, Year 1*, September, 1987
- *LARC Student Outcomes Study: Policy Implications and Recommendations*, March, 1988
- *Meeting the Challenge of a Changing California*, April, 1988
- *Curriculum Practices in Writing Courses*, Powers and Cox, April, 1988

SELECTED CONFERENCES

- *Learning Skills Definitions for California Community Colleges*, Statewide Conference, November, 1982
- *Directions for Learning Assessment and Retention*, Statewide Conference, November, 1983
- *Defining Retention and Persistence*, Statewide Conference, November, 1984
- *LARC Regional Presentations: Admissions, Orientation, Assessment, Advisement*, 1985
- *Policies Plus Practices in Assessment: Today and Tomorrow*, Statewide Conference, 1986
- *Student Outcomes and Student Success*, Statewide Conference, 1987
- *Beyond Testing*, San Jose, May, 1988

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